



Global climate change and children's health: Threats and strategies for prevention

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Abstract:

BACKGROUND: Global climate change will have multiple effects on human health. Vulnerable populations-children, the elderly, and the poor-will be disproportionately affected. **OBJECTIVE:** We reviewed projected impacts of climate change on children's health, the pathways involved in these effects, and prevention strategies. **DATA SOURCES:** We assessed primary studies, review articles, and organizational reports. **DATA SYNTHESIS:** Climate change is increasing the global burden of disease and in the year 2000 was responsible for > 150,000 deaths worldwide. Of this disease burden, 88% fell upon children. Documented health effects include changing ranges of vector-borne diseases such as malaria and dengue; increased diarrheal and respiratory disease; increased morbidity and mortality from extreme weather; changed exposures to toxic chemicals; worsened poverty; food and physical insecurity; and threats to human habitation. Heat-related health effects for which research is emerging include diminished school performance, increased rates of pregnancy complications, and renal effects. Stark variation in these outcomes is evident by geographic region and socioeconomic status, and these impacts will exacerbate health disparities. Prevention strategies to reduce health impacts of climate change include reduction of greenhouse gas emissions and adaptation through multiple public health interventions. **CONCLUSIONS:** Further quantification of the effects of climate change on children's health is needed globally and also at regional and local levels through enhanced monitoring of children's environmental health and by tracking selected indicators. Climate change preparedness strategies need to be incorporated into public health programs.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3059989>

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Policymaker

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Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security, Human Conflict/Displacement, Human Conflict/Displacement, Temperature, Other Exposure

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co-Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Developmental Effect, Infectious Disease, Injury, Respiratory Effect, Urologic Effect

Developmental Effect: Reproductive

Infectious Disease: Vectorborne Disease

Foodborne/Waterborne Disease: Other Diarrheal Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue, Malaria

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

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Adaptation, Mitigation

Population of Concern: A focus of content

Population of Concern: 

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status, Pregnant Women

Resource Type: 

format or standard characteristic of resource

Review

Resilience: 

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: 

time period studied

Time Scale Unspecified